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Docket Nos. 50-237
and 50-249

JUN 03 1976

Commonwealth Edison Company
ATTN: Mr. R. L. Bolger
Assistant Vice President
Post Office Box 767
Chicago, Illinois 60690

Gentlemen:

In response to your request dated March 2, 1976, the Commission has issued the enclosed Amendment Nos. 22 and 19 to Facility License Nos. DPR-19 and DPR-25 for Units 2 and 3 of the Dresden Nuclear Power Station, respectively.

The amendments consist of Technical Specification changes which govern the operation and surveillance of your modified crane handling system as described in your letters dated November 5, 1974, June 14 and December 5, 1975, and February 5, March 2, and March 23, 1976. Some modifications and additions to the proposed technical specifications were required to meet our requirements. These have been discussed with your staff.

By letter dated May 20, 1976, you requested temporary waivers on the installation of three crane modifications which you had previously agreed to complete prior to using the crane for handling the fuel cask. The waivers are necessary to permit fuel cask handling scheduled for June 1976. The amendments approve fuel cask handling in accordance with your requested waivers until August 31, 1976. Specifications which compensate for handling the fuel cask prior to completing the planned crane modifications have been added to your Technical Specifications. These modifications have been discussed with your staff.

These amendments conclude our review of the fuel cask drop accident analysis for Dresden Units 2 and 3 for fuel shipping casks weighing up to 100 tons.

Note corrections on pg 3 & 5 SE

OFFICE	DOR:ORB-2	DOR:ORB-2	OELD	DOR:ORB-2		
x27403 SURNAME	RMDiggs	Fletcher:cop	LSwanson	DLZiemann		
DATE	6/1/76	6/1/76	6/2/76	6/3/76		

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

June 3, 1976

Docket Nos. 50-237
and 50-249

Commonwealth Edison Company
ATTN: Mr. R. L. Bolger
Assistant Vice President
Post Office Box 767
Chicago, Illinois 60690

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In response to your request dated March 2, 1976, the Commission has issued the enclosed Amendment Nos. 22 and 19 to Facility License Nos. DPR-19 and DPR-25 for Units 2 and 3 of the Dresden Nuclear Power Station, respectively.

The amendments consist of Technical Specification changes which govern the operation and surveillance of your modified crane handling system as described in your letters dated November 8, 1974, June 10 and December 8, 1975, and February 9, March 2, and March 29, 1976. Some modifications and additions to the proposed technical specifications were required to meet our requirements. These have been discussed with your staff.

By letter dated May 20, 1976, you requested temporary waivers on the installation of three crane modifications which you had previously planned to complete prior to using the crane for handling the fuel cask. The waivers are necessary to permit fuel cask handling scheduled for June 1976. The amendments approve fuel cask handling in accordance with your requested waivers until August 29, 1976. Specifications which compensate for handling the fuel cask prior to completing the planned crane modifications have been added to your Technical Specifications. These modifications have been discussed with your staff.

These amendments conclude our review of the fuel cask drop accident analysis for Dresden Units 2 and 3 for fuel shipping casks weighing up to 100 tons.

A copy of the related Safety Evaluation Report and Federal Register Notice are also enclosed.

Sincerely,

Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Enclosures:
1. Amendment No. 22 to License DPR-19
2. Amendment No. 19 to License DPR-25
3. Safety Evaluation Report
4. Federal Register Notice

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cc w/enclosures and cy of CECo filings
dtd. 11/8/74, 6/10/75, 12/8/75, 2/9/76,
3/2 and 29/76, 5/20/76:
Mr. Leroy Stratton
Bureau of Radiological Health
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-237

DRESDEN NUCLEAR POWER STATION UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 22
License No. DPR-19

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Commonwealth Edison Company (the licensee) dated March 2, 1976, and related filings dated November 8, 1974, June 10, 1975, December 8, 1975, February 9, 1976, March 29, 1976, and May 20, 1976, comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. After weighing the environmental aspects involved, the issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisified.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 3, 1976

ATTACHMENT TO LICENSE AMENDMENT NO. 22

FACILITY OPERATING LICENSE NO. DPR-19

DOCKET NO. 50-237

Replace existing pages 154 and 156 of the Appendix A Technical Specifications with the attached revised pages bearing the same numbers. Insert new pages 154a and 155a. Changed areas on the new and revised pages are shown by marginal lines.

3.10 LIMITING CONDITION FOR OPERATION	4.10 SURVEILLANCE REQUIREMENT
1. The reactor mode switch shall be locked in the "re-fuel" position. The refueling interlock which prevents more than one control rod from being withdrawn may be bypassed on a withdrawn control rod after the fuel assemblies in the cell containing (controlled by) that control rod have been removed from the reactor core. All other re-fueling interlocks shall be operable.	1. This surveillance requirement is the same as that given in 4.10.A.
2. SRM's shall be operable in the core quadrant where fuel or control rods are being moved and in an adjacent quadrant. The requirements for an SRM to be considered operable are given in 3.10.B.	2. This surveillance requirement is the same as that given in 4.10.B.
F. Spent Fuel Cask Handling	F. Spent Fuel Cask Handling
1. Fuel cask handling above the 545' elevation will be done with the reactor building crane in the RESTRICTED MODE only except as specified in 3.10.F.2.	1. Prior to fuel cask handling operations, the redundant crane including the rope, hooks, slings, shackles and other operating mechanisms will be inspected. The rope will be replaced if any of the following conditions exist: a. Twelve (12) randomly distributed broken wires in one lay or four (4) broken wires in one strand of one rope lay. b. Wear of one-third the original diameter of outside individual wire. c. Kinking, crushing, or any other damage resulting in distortion of the rope.
2. Fuel cask handling in other than the RESTRICTED MODE will be permitted in emergency or equipment failure situations only to the extent necessary to get the cask to the closest acceptable stable location.	
3. Before August 30, 1976, fuel cask handling is permitted, without the mechanically operated power limit switch in the main hoist motor power circuit and without an operable control system for limiting the crane/cask travel to	

3.10 LIMITING CONDITION FOR OPERATION	4.10 SURVEILLANCE REQUIREMENT
a restricted area, provided an operator, in constant communication with the crane operator and with personnel directing crane operation is stationed at the main breaker supplying power to the overhead crane with no duties other than monitoring crane operation. The operator will be ordered to remove power from the crane in the event that a malfunction either causes the cask to be lifted above a six-inch limit or causes the cask to deviate from the restricted area. On and after August 30, 1976, operation with a failed controlled area limit switch is permissible for 48 hours providing an operator is on the refueling floor to assure the crane is operated within the restricted zone painted on the floor.	d. Evidence of any type of heat damage. e. Reductions from nominal diameter of more than 1/16 inch for a rope diameter from 7/8" to 1 1/4" inclusive. 2. Before August 30, 1976, prior to operations in the RESTRICTED MODE a. the "two-block" limit switches will be tested. On and after August 30, 1976, prior to operation in the RESTRICTED MODE a. the controlled area limit switches will be tested; b. the "two-block" limit switches will be tested; c. the "inching hoist" controls will be tested. 3. The empty spent fuel cask will be lifted free of all support by a maximum of 1 foot and left hanging for 5 minutes prior to any series of fuel cask handling operations.

*The maintenance is performed with the mode switch in the "re-fuel" position to provide the re-fueling interlocks normally available during re-fueling operations as explained in Part A of these Bases. In order to withdraw a second control rod after withdrawal of the first rod, it is necessary to bypass the re-fueling interlock on the first control rod which prevents more than one control rod from being withdrawn at the same time. The requirement that an adequate shutdown margin be demonstrated with the control rods remaining in service insures that inadvertent criticality cannot occur during this maintenance. The Shutdown margin is verified by demonstrating that the core is shut down even if the strongest control rod remaining in service is fully withdrawn. Disarming the directional control valves does not inhibit control rod scram capability.

The requirement for SRM operability during the maintenance is covered in Part B of these Bases.

E. The intent of this specification is to permit the unloading of a significant portion of the reactor core for such purposes as in-service inspection requirements, examination of the core support plate, etc. This specification provides assurance that inadvertent criticality does not occur during such operation.

This operation is performed with the mode switch in the "re-fuel" position to provide the re-fueling interlocks normally available during re-fueling as explained in Part A of these Bases. In order to withdraw more than one control rod, it is necessary to bypass the re-fueling interlock on each withdrawn control rod which prevents more than one control rod from being withdrawn at a time. The requirement that the fuel assemblies in the cell controlled by the control rod be removed from the reactor core before the interlocks can be bypassed insures that withdrawal of another control rod does not result in inadvertent criticality. Each control rod essentially provides reactivity control for the fuel assemblies in the cell associated with that control rod. Thus, removal of an entire cell (fuel assemblies plus control rod) results in a lower reactivity potential of the core.

The requirement for SRM operability during these operations is covered in Part B of these Bases.

F. The operation of the redundant crane in the Restricted Mode during fuel cask handling operations assures that the cask remains within the controlled area once it has been removed from its transport vehicle (i.e., once it is above the 545' elevation). Handling of the cask on the Refueling Floor in the Unrestricted Mode is allowed only in the case of equipment failures or emergency conditions when the cask is already suspended. The Unrestricted Mode of operation is allowed only to the extent necessary to get the cask to a suitable

stationary position so the required repairs can be made. Operation with a failed controlled area microswitch will be allowed for a 48-hour period providing an Operator is on the floor in addition to the crane operator to assure that the cask handling is limited to the controlled area as marked on the floor. This will allow adequate time to make repairs but still will not restrict cask handling operations unduly.

The Surveillance Requirements specified assure that the redundant crane is adequately inspected in accordance with the accepted ANSI Standard (B.30.2.0) and manufacturer's recommendations to determine that the equipment is in satisfactory condition. The testing of the controlled area limit switches assures that the crane operation will be limited to the designated area in the Restricted Mode of operation. The test of the "two-block" limit switch assures the power to the hoisting motor will be interrupted before an actual "two-blocking" incident can occur. The test of the inching hoist assures that this mode of load control is available when required.

Requiring the lifting and holding of the cask for 5 minutes during the initial lift of each series of cask handling operations puts a load test on the entire crane lifting mechanism as well as the braking system.

Performing this test when the cask is being lifted initially from the cask car assures that the system is operable prior to lifting the load to an excessive height.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-249

DRESDEN NUCLEAR POWER STATION UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 19
License No. DPR-25

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Commonwealth Edison Company (the licensee) dated March 2, 1976, and related filings dated November 8, 1974, June 10, 1975, December 8, 1975, February 9, 1976, March 29, 1976, and May 20, 1976, comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. After weighing the environmental aspects involved, the issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisified.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 3, 1976

ATTACHMENT TO LICENSE AMENDMENT NO. 19

FACILITY OPERATING LICENSE NO. DPR-25

DOCKET NO. 50-249

Replace existing pages 154 and 156 of the Appendix A Technical Specifications with the attached revised pages bearing the same numbers. Insert new pages 154a and 155a. Changed areas on the new and revised pages are shown by marginal lines.

3.10 LIMITING CONDITION FOR OPERATION	4.10 SURVEILLANCE REQUIREMENT
1. The reactor mode switch shall be locked in the "re-fuel" position. The refueling interlock which prevents more than one control rod from being withdrawn may be bypassed on a withdrawn control rod after the fuel assemblies in the cell containing (controlled by) that control rod have been removed from the reactor core. All other re-fueling interlocks shall be operable.	1. This surveillance requirement is the same as that given in 4.10.A.
2. SRM's shall be operable in the core quadrant where fuel or control rods are being moved and in an adjacent quadrant. The requirements for an SRM to be considered operable are given in 3.10.B.	2. This surveillance requirement is the same as that given in 4.10.B.
F. Spent Fuel Cask Handling	F. Spent Fuel Cask Handling
1. Fuel cask handling above the 545' elevation will be done with the reactor building crane in the RESTRICTED MODE only except as specified in 3.10.F.2.	1. Prior to fuel cask handling operations, the redundant crane including the rope, hooks, slings, shackles and other operating mechanisms will be inspected. The rope will be replaced if any of the following conditions exist: a. Twelve (12) randomly distributed broken wires in one lay or four (4) broken wires in one strand of one rope lay. b. Wear of one-third the original diameter of outside individual wire. c. Kinking, crushing, or any other damage resulting in distortion of the rope.
2. Fuel cask handling in other than the RESTRICTED MODE will be permitted in emergency or equipment failure situations only to the extent necessary to get the cask to the closest acceptable stable location.	
3. Before August 30, 1976, fuel cask handling is permitted, without the mechanically operated power limit switch in the main hoist motor power circuit and without an operable control system for limiting the crane/cask travel to	

3.10 LIMITING CONDITION FOR OPERATION	4.10 SURVEILLANCE REQUIREMENT
a restricted area, provided an operator, in constant communication with the crane operator and with personnel directing crane operation is stationed at the main breaker supplying power to the overhead crane with no duties other than monitoring crane operation. The operator will be ordered to remove power from the crane in the event that a malfunction either causes the cask to be lifted above a six-inch limit or causes the cask to deviate from the restricted area. On and after August 30, 1976, operation with a failed controlled area limit switch is permissible for 48 hours providing an operator is on the refueling floor to assure the crane is operated within the restricted zone painted on the floor.	d. Evidence of any type of heat damage. e. Reductions from nominal diameter of more than 1/16 inch for a rope diameter from 7/8" to 1 1/4" inclusive. 2. Before August 30, 1976, prior to operations in the RESTRICTED MODE a. the "two-block" limit switches will be tested. On and after August 30, 1976, prior to operation in the RESTRICTED MODE a. the controlled area limit switches will be tested; b. the "two-block" limit switches will be tested; c. the "inching hoist" controls will be tested. 3. The empty spent fuel cask will be lifted free of all support by a maximum of 1 foot and left hanging for 5 minutes prior to any series of fuel cask handling operations.

*The maintenance is performed with the mode switch in the "re-fuel" position to provide the re-fueling interlocks normally available during re-fueling operations as explained in Part A of these Bases. In order to withdraw a second control rod after withdrawal of the first rod, it is necessary to bypass the re-fueling interlock on the first control rod which prevents more than one control rod from being withdrawn at the same time. The requirement that an adequate shutdown margin be demonstrated with the control rods remaining in service insures that inadvertent criticality cannot occur during this maintenance. The Shutdown margin is verified by demonstrating that the core is shut down even if the strongest control rod remaining in service is fully withdrawn. Disarming the directional control valves does not inhibit control rod scram capability.

The requirement for SRM operability during the maintenance is covered in Part B of these Bases.

E. The intent of this specification is to permit the unloading of a significant portion of the reactor core for such purposes as in-service inspection requirements, examination of the core support plate, etc. This specification provides assurance that inadvertent criticality does not occur during such operation.

This operation is performed with the mode switch in the "re-fuel" position to provide the re-fueling interlocks normally available during re-fueling as explained in Part A of these Bases. In order to withdraw more than one control rod, it is necessary to bypass the re-fueling interlock on each withdrawn control rod which prevents more than one control rod from being withdrawn at a time. The requirement that the fuel assemblies in the cell controlled by the control rod be removed from the reactor core before the interlocks can be bypassed insures that withdrawal of another control rod does not result in inadvertent criticality. Each control rod essentially provides reactivity control for the fuel assemblies in the cell associated with that control rod. Thus, removal of an entire cell (fuel assemblies plus control rod) results in a lower reactivity potential of the core.

The requirement for SRM operability during these operations is covered in Part B of these Bases.

F. The operation of the redundant crane in the Restricted Mode during fuel cask handling operations assures that the cask remains within the controlled area once it has been removed from its transport vehicle (i.e., once it is above the 545' elevation). Handling of the cask on the Refueling Floor in the Unrestricted Mode is allowed only in the case of equipment failures or emergency conditions when the cask is already suspended. The Unrestricted Mode of operation is allowed only to the extent necessary to get the cask to a suitable

stationary position so the required repairs can be made. Operation with a failed controlled area microswitch will be allowed for a 48-hour period providing an Operator is on the floor in addition to the crane operator to assure that the cask handling is limited to the controlled area as marked on the floor. This will allow adequate time to make repairs but still will not restrict cask handling operations unduly.

The Surveillance Requirements specified assure that the redundant crane is adequately inspected in accordance with the accepted ANSI Standard (B.30.2.0) and manufacturer's recommendations to determine that the equipment is in satisfactory condition. The testing of the controlled area limit switches assures that the crane operation will be limited to the designated area in the Restricted Mode of operation. The test of the "two-block" limit switch assures the power to the hoisting motor will be interrupted before an actual "two-blocking" incident can occur. The test of the inching hoist assures that this mode of load control is available when required.

Requiring the lifting and holding of the cask for 5 minutes during the initial lift of each series of cask handling operations puts a load test on the entire crane lifting mechanism as well as the braking system.

Performing this test when the cask is being lifted initially from the cask car assures that the system is operable prior to lifting the load to an excessive height.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING APPROVAL TO FACILITY MODIFICATIONS TO REDUCE THE PROBABILITY OF A FUEL CASK DROP ACCIDENT TO AN ACCEPTABLY LOW LEVEL
AND
AMENDMENT NOS. 22 AND 19 TO LICENSE NOS. DPR-19 AND DPR-25

COMMONWEALTH EDISON COMPANY

DRESDEN UNITS 2 AND 3

DOCKET NOS. 50-237 AND 50-249

INTRODUCTION

By letter dated April 23, 1973, we requested that Commonwealth Edison Company (CECo), prior to routine use of spent fuel shipping casks in the Dresden Station Unit Nos. 2 and 3 fuel storage pools, install an acceptable cask drop protection system which would provide assurance of pool structural integrity in the event of a cask drop. By letter dated November 8, 1974, CECo submitted Dresden Special Report No. 41 and Quad Cities Special Report No. 16, "Reactor Building Crane and Cask Yoke Assembly Modifications." This report describes modifications to the crane handling system for Dresden Station Unit Nos. 2 and 3 to preclude dropping a spent fuel shipping cask by preventing all postulated single-component failures.

By letter dated May 20, 1976, CECo requested a temporary waiver of the installation of three planned modifications to the overhead crane at Dresden Unit Nos. 2 and 3 to permit handling spent fuel casks beginning June 1, 1976. The request would permit crane operation, for fuel cask handling, without a redundant mechanical limit switch in the main hoist power circuit, without an electrical interlock system to prevent crane travel outside a specific path, and without a slow speed drive motor.

BACKGROUND

Overhead handling systems are used for moving heavy items at nuclear power plants. The handling of heavy loads such as a spent fuel cask raises the possibility of damage to the load and to safety-related equipment or structures under and adjacent to the path of travel should the handling system malfunction. Overhead handling systems intended to provide single failure-proof handling of loads should be designed so that a single failure or malfunction will not result in dropping

or losing control of the heaviest load to be handled. Since the crane industry has not yet developed codes or standards that adequately cover the design, operation, and testing for a single failure-proof crane, the NRC staff has developed a position statement to provide a consistent basis for reviewing overhead handling systems. This statement is Auxiliary and Power Conversion Systems Branch Technical Position 9-1 (BTP APCSB 9-1). Review of the Dresden Station Unit Nos. 2 and 3 overhead crane handling system was based on BTP APCSB 9-1, a copy of which was sent to CECo as enclosure B of our request for additional information dated October 16, 1975.

SYSTEM DESCRIPTION

The overhead crane handling system for Dresden Unit Nos 2 and 3 consists of an overhead, bridge type crane, spent fuel cask lifting devices, and controls. The system is used during plant operation for lifting and transporting the spent fuel shipping cask between the spent fuel pool and the cask decontamination/shipping area. The overhead crane is located indoors in a controlled environment of about 70°F, and has a main hoist rated at 125 tons. The crane hoist system consists of a dual load path through the hoist gear train, the reeving system, and the hoist load block along with restraints at critical points to provide load retention and minimization of uncontrolled motions of the load in the event of failure of any single hoist component. Redundancy has been designed into the hoist and trolley brakes, the spent fuel cask lifting devices, and the crane control components. Within the dual load path, the design criteria is such that all dual elements comply with the Crane Manufacturers Association of America Specification #70 (CMAA #70) allowable stresses except for the hoisting rope which is governed by more stringent job specification criteria. All single element components, within the load path, have been designed to a minimum safety factor of 7.5 based on the ultimate strength of the material.

All analyses performed relative to the overhead crane handling system loads have been based on the National Lead 10/24 spent fuel shipping cask which weighs 100 tons. If larger casks are used, additional analyses will be required to assure safety margins are maintained.

The licensee has developed administrative controls and installed limit switches to restrict the path of travel of the crane and fuel cask to a specific controlled area. The controls are intended to assure that a controlled path is followed in moving a cask between the shipping area and the spent fuel pool. Requirements for portions of these controls

will be incorporated into the Dresden Unit Nos. 2 and 3 Technical Specifications. The revised specifications would assure that the electrical interlocks are operable and in operation prior to cask handling, would provide limitations on crane operation with a failed controlled area limit switch, and would permit operation without controlled area interlocks in an emergency to move the cask to the closest acceptable stable location.

CECo letter, dated May 20, 1976, requested temporary approval to handle spent fuel casks without operable electrical interlocks to limit cask travel. This request is evaluated in the following section.

EVALUATION

Based on our review of data provided by the licensee, we have concluded that the integrated design of crane, controls, and cask lifting devices meets the intent of BTP APCSB 9-1 as regards single failure criteria except in the specific areas of the crane reeving system, and protection against "two blocking". "Two blocking" is an inadvertently continued lift which brings the load and block assembly into physical contact, thereby preventing further movement and creating shock loads on the rope and reeving assembly.

The crane reeving system does not meet the recommended criteria for wire rope safety factors and fleet angles. The purpose of these criteria is to assure a design which minimizes wire rope stress and thereby provides maximum assurance of crane safety under all operating and maintenance conditions. To compensate in these design areas, the licensee, by letter dated March 2, 1976, has proposed to incorporate into the Technical Specifications a specific program of wire rope inspection and replacement, the purpose of which will be to assure the wire rope will be maintained as close as practicable to original design safety factors at all times. This inspection and replacement program satisfies our concerns, and on this basis we conclude that the crane reeving system is acceptable.

The crane control system does not provide adequate protection against "two blocking" in the event of a fused contactor in the main hoist control circuitry. However, the licensee has agreed to provide and install a mechanically operated power limit switch in the main hoist motor power circuit on the load side of all hoist motor power circuit

controls. This power limit switch will interrupt power to the main hoist motor and cause the holding brakes to set prior to "two blocking" in the event of a fused contactor. We have concluded that this proposed modification will provide adequate protection against "two blocking", and the control system would be acceptable.

Because of equipment delivery problems for the power limit switch, CECo has requested that handling of fuel casks at Dresden Unit Nos. 2 and 3 be permitted for a limited period of time prior to installation of the switch. They have proposed administrative controls as a temporary means of providing redundancy in the current crane system. The administrative controls would require an operator, in constant communications with the crane operator and with personnel directing crane operations, to be stationed at the main breaker supplying power to the crane. The operator will be ordered to remove power from the crane in the event that a malfunction causes the cask to be lifted above the limit of six inches above the operating floor. Since the power limit switch is a backup for three other limit switches, and since removal of power to the crane would prevent "two blocking" even in the event of a fused contactor in the hoist control circuitry, we have concluded that the administrative controls proposed by CECo would be an acceptable temporary substitute for the power limit switch. Cask handling without the power limit switch would be permitted until August 29, 1976. This should provide adequate time to procure the switch and is considered an acceptable period of time to operate in accordance with the proposed administrative controls.

We have reviewed the administrative procedures, proposed Technical Specifications, and electrical interlocks for limiting the crane and cask travel path as detailed in CECo's submittals. Some modification of the proposed Technical Specifications was required to meet our requirements. These changes were discussed with CECo representatives. We conclude that adequate provisions have been provided to assure that the crane and cask would not travel outside the controlled area and that the control system for this purpose is acceptable. We also find the modified technical specifications for cask handling in emergency situations and for operating with a failed controlled area limit switch are acceptable.

Since the electrical interlocks for the crane path control system cannot be completely tested prior to scheduled fuel cask handling in June 1976, CECo has requested a temporary waiver of the requirement for electrical interlocks. To compensate, CECo has proposed to implement the same administrative control procedures previously discussed to prevent "two blocking". In the event that a malfunction should cause the crane to deviate from its intended path, the operator assigned to the main electrical supply breaker would be ordered to remove power from the crane.

We have concluded that the proposed administrative controls would provide reasonable assurance that the crane and cask will not deviate from the controlled area. Furthermore, since the crane system has been modified to provide redundancy, the likelihood of a cask drop accident has been reduced significantly.

By letter dated February 9, 1976, CECo indicated that the redundant crane installation would include a slow speed drive motor especially for use in handling the 100 ton cask. CECo has experienced problems with the slow speed motor installation in preliminary testing and limited use, and work to correct these problems cannot be completed prior to the planned shipment of fuel in June 1976. Therefore, CECo has proposed to modify the electrical circuit to limit the maximum attainable hoisting speed of the main hoist to five feet per minute. Such circuit modifications were performed on the previous (non-redundant) crane installation and proved satisfactory during previous cask handling operation. The hoisting rate of five feet per minute is consistent with BTP APCSB 9-1.

We have reviewed the proposed changes to the main hoist circuit and concluded that they are an acceptable method for limiting cask hoisting speed and do not degrade the capabilities of the crane from the standpoint of reliability or ability to withstand single failures.

Based on our evaluation of the data provided and the commitments made by CECo in the areas of wire rope surveillance and prevention of "two blocking", we conclude that the overhead crane handling system and proposed spent fuel cask handling Technical Specifications meet our requirements and are acceptable for handling spent fuel casks weighing up to 100 tons. We also conclude that the temporary waiver requests by CECo, by letter dated May 20, 1976, are acceptable provided the overhead crane is otherwise operated in accordance with the Technical Specifications as modified.

ENVIRONMENTAL CONSIDERATIONS

We have determined that the amendments do not involve a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR §51.5(d)(4) that an environmental statement, negative declaration, or environmental appraisal need not be prepared in connection with the issuance of these amendments.

CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) because the changes do not involve a significant increase in the probability or consequences of accidents previously considered and do not involve a significant decrease in a safety margin, the changes do not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: June 3, 1976

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NOS. 50-237 AND 50-249

COMMONWEALTH EDISON COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment Nos. 22 and 19 to Facility Operating License Nos. DPR-19 and DPR-25, respectively, issued to the Commonwealth Edison Company (the licensee), which revised Technical Specifications for operation of the Dresden Nuclear Power Station Unit Nos. 2 and 3 (the facilities) located in Grundy County, Illinois. The amendments are effective as of their date of issuance.

The amendments incorporate into the Technical Specifications provisions for spent fuel cask handling and approve the overhead crane handling system for Dresden Unit Nos. 2 and 3.

The application for the amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendments. Prior public notice of these amendments was not required since the amendments do not involve a significant hazards consideration.

The Commission has determined that the issuance of these amendments will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental statement, negative declaration

or environmental impact appraisal need not be prepared in connection with issuance of the amendments.

For further details with respect to this action, see (1) the application for amendments dated March 2, 1976, and related filings dated November 8, 1974, June 10, 1975, December 8, 1975, February 9, 1976, March 29, 1976, and May 20, 1976, (2) Amendment No. 22 to License No. DPR-19, (3) Amendment No. 19 to License No. DPR-25, and (4) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at the Morris Public Library, 604 Liberty Street, Morris, Illinois 60451. A single copy of items (2), (3) and (4) above may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 3rd day of June, 1976.

FOR THE NUCLEAR REGULATORY COMMISSION

Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors